A REVIEW OF THE CARIBBEANAE GROUP (ACARIÑA: TETRANYCHIDAE)

Adilson D. Paschoal

SUMMARY

Four species from the Brazilian fauna, Mononychus tanajoa (Bondar, 1938), Mononychus meggregori Flechtmann & Baker, 1970, Mononychus bondari Paschoal, 1970 and Mononychus chaemosetosus Paschoal, 1970, are placed in the Caribbeanae Group. General features of this group are presented. The species Mononychus caribbeanae (McGregor, 1950) and Mononychus planki (McGregor, 1950) are redescribed. A key to the species of this group is also included.

Introduction — In the first comprehensive revision of the family Tetranychidae by Pritchard & Baker (1955), two species were included in the Caribbeanae Group; they were: Eotetranychus caribbeanae (McGregor, 1950) and Eotetranychus planki (McGregor, 1950). In 1960, Wainstein created the subgenus Schizotetranychus (Mononychus), having by type Tetranychus planki McGregor, 1950; he also included in this subgenus the species Tetranychus caribbeanae. Recently, Tuttle & Baker (1968) have upraised the subgenus to a genus rank.

Four new species from Brazil, Mononychus tanajoa (Bondar, 1938), Mononychus meggregori Flechtmann & Baker, 1970, Mononychus bondari Paschoal, 1970 and Mononychus chaemosetosus Paschoal, 1970, are now placed in the Caribbeanae Group. M. planki and M. caribbeanae are redescribed based on the new morphological characters in use at the present time.

The number and arrangement of leg setae are symbolically represented. In the first parenthesis is the total number of setae of a segment; in the second the total number of proximal setae and in the third the total number of distal setae. The first number indicates the tactile setae and the second the sensory setae. For tarsi I and II the number of proximal setae and in the third the total number included.

KEY TO THE SPECIES

1.—Female with five tactile setae plus a sensory setae at the proximal area of tarsus I; tibia I with nine tactile setae and one sensory setae. Aedeagus straight.

2.—Female with four tactile setae plus one or three sensory setae at the proximal area of tarsus I; tibia I with nine or eight tactile setae and one or four sensory setae. Aedeagus bent ventrad.

3.—Dorsocentral setae of the three former pairs, in female, short, clavate, and less than one-half the longitudinal intervals between their bases; third pair of dorsocentral setae one and a half times longer than that of the two anterior pairs; dorso lateral setae about two times longer than dorsocentral setae. Large species. M. tanajoa.

4. —Dorsocentral setae of the three former pairs, in female, long, similar to the others and longer than one half the longitudinal intervals between their bases; third pair of dorsocentral setae one and a half times longer than that of first pair and one third times longer than that of second pair. Small species. M. bondari.

3. —Female with four tactile setae and one sensory setae at the proximal area of tarsus I; tibia I with nine or eight tactile setae plus a sensory setae; tarsus II with three or two tactile
setae plus a sensory one at proximal area; tibia II with seven or six tactile setae.

4. — Tibia I of female bears eight tactile and one sensory setae; tarsus II with two tactile setae and one sensory setae at the proximal area of tarsus; tibia I with nine tactile plus four sensory setae; tarsus II with three tactile setae plus a sensory one at proximal area; tibia II with seven tactile setae.

5. — Reticulations absent on the dorsum of body; striae concentric at the setae bases. 

REDESCRIPTIONS

**MONONYCHUS CARIBBEANAE** (McGregor), 1950

Redescription of female — Terminal sensillum of palpus cylindrical, two to two and a half times as long as broad. Stylophore conical, broadly rounded anteriorly. Peritreme short, slender, ending in an oval bulb. Tarsus I: (10+4+2 duplexes); tibia I: (8+4+1), tarsus II: (9+4+1+1) + (9+3+1+1) + (7+3+1+1); tibiae II-III-IV: (6+0); tarsi III-IV: (10+1) = (2+1) + (8+0). Empodium split into six hairs in the median portion of appendage; the empodial hairs are of the same length, being the basal one stronger than the others. Dorsal body setae short, pubescent, clavate and on small tubercles; outer sacral setae and clawlets on strong tubercles. The three former dorsocentral setae very short, clavate, similar in length, not on tubercles, and less than one-half as long as longitudinal intervals between their bases (about one fifth of these distances). Dorsolateral setae equal short, but longer than the dorsocentral setae. Other dorsal setae are longer, sparsely set on tubercles, mainly the outer sacral and claval ones. Dorsal striation very irregular, with anastomosed striae rather than the normal parallel striae. Irregularity of striation is notable at the median portion of propodosoma and at the lateral and posterior portions of hysterostoma; the striation is regular only at the lateral and posterior area of propodosoma and at the median portion of metapodosoma. Lobes of striae round-ed, as long as wide, and separated at the bases. Lengh of body (including rostrum): 448 micra. Width: 227 micra.

Examinated material — 10 females, Socorro, Puntarenas, Costa Rica, April 18, 1960, on Manihot utilissima; 8 females, Key West, Florida, May 10, 1950, on cassava, coll. L.W. Holley; 1 female from Caribbean area.

Observations — These materials belong to the U.S. National Museum, and were sent by Dr. Edward Baker. Figures: see Pritchard & Baker, 1955. 

Note — Livshitz (1969) described the male allotype to this species from Cuba. 

Geographical distribution and host plants — Puerto Rico, Haiti, Saint Kitts Island, Leeward Group, Florida, Costa Rica, on Manihot utilissima; Cuba, on Manihot esculenta; Florida, on lechthymathia sp. and Dalbergia sissu; Mexico, on Platyniscum trifoliatum.

**MONONYCHUS PLANKI** (McGregor), 1950

Redescription of female — Terminal sensillum of palpus cylindrical, about as long as wide. Stylophore conical, rounded anteriorly and with longitudinal stria. Peritreme short, slender, ending in an oval bulb. Tarsus I: (10+6+2+2 duplexes); tibia I: (9+4); tarsus II: (10+4+1+1) + (3+1) + (7+3+1+1); tibia II: (7+0); tarsus III-IV: (10+1) = (2+1) + (8+0); tibiae II-III-IV: (6+0). Empodium split at the median portion into six hairs; empodial hairs similar in length, being the basal hairs stronger than the others. Dorsal body setae long, pubescent, slightly enlarged near the distal end, rodlike to clavate, and set on strong tubercles. The three first pairs of dorsocentral setae equal or similar to the other setae and longer than longitudinal intervals between their bases. Dorsolateral setae about the same length of the dorsocentral ones. Dorsal striation with longitudinal stria on propodosoma and transversal striae on hysterostoma with the exception of the longitudinal striae between third pair of dorsocentral setae. Irregular striae, forming a mosaic pattern, are found at median portion of propodosoma and at the setae bases. Lobes of striae rounded, as long as wide and separated at the bases. Lengh of body (including rostrum): 375 micra. Width: 235 micra.

Examinated material — 8 females, Key West, Florida, May 10, 1950, on cassava, coll. L.W. Holley; 1 female, Caribbean area.

Observations — These materials belong to the U.S. National Museum, and were sent by Dr. Edward Baker. Figures: see Pritchard & Baker, 1955. 

Examinated material — 4 females, Mayaguez, Puerto Rico, November 14, 1946, on Soya max, coll. H.K. Plank; 1 female and 1 male, Mayaguez, Puerto Rico, March 20, 1950, on "kudzu" leaves, coll. H.K. Plank; 1 female, La Calera, Managua, Nicaragua, January 12, 1960, on "kudzu" leaves, coll. F.A. Estrada (these materials belong to the U.S. National Museum, and was sent by Dr. Edward Baker). Several females and males collected in the State of Sao Paulo, Brazil, on Phaseolus vulgaris, Cucurbita pepo, Hibiscus esculentus, and Tipuana speciosa.

Geographical distribution and host plants — Puerto Rico, on Erythrina berteroana, Soya max, Puertu phaseoloids, "kudzu" and Centrosema virginiana; Trinidad, on Cañafistulicina; Argentina, on Cassia occidentalis; Brazil, Gossypium herbaceum, Phaseolus vulgaris, Manihot utilissima, tipuna speciosa, and several others (see Paschoal, 1970).

BIBLIOGRAPHY


LIVSHITZ, I.Z., 1969. To the discovering of Allonychus braziliensis (McGregor, 1950) and Schizotetranychus caribbeanae (McGregor, 1950) males (Acariformes, Tetranychidae') (in russian).


